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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,542	01/24/2002	Ken Amemiya	218407US3	3306
22850	7590	10/28/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGO, HOANG X	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,542

Applicant(s)

AMEMIYA ET AL.

Examiner

Hoang Ngo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 29-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-40 is/are allowed.
- 6) ☒ Claim(s) 1-4, 9 and 18-24 is/are rejected.
- 7) ☒ Claim(s) 5-8 and 10-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2 and 18-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawakami.

Kawakami discloses a cleaning device comprising a brush roller 11 having a brush for contacting a surface of a member 1 to be cleaned, the brush roller being movable from a position in which the brush is away from and not in contact with the surface of the member to a position where the brush contacts the surface of the member and the brush roller rotates by following a movement of the surface of the member (see Fig. 6, col. 8, lines 59).

Kawakami further disclose the member to be cleaned is a charge roller (col. 7, line 3) facing an image carrier 3 (see Fig. 6), the member to be cleaned comprising a cylindrical rotary body 1a and the brush contacts the surface of the cylindrical rotary body at a position above a horizontal plane of an axis of the rotary body (see Fig. 6).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-4, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami in view of Swift (U.S. Pat. No. 5,689,791).

As discussed above, Kawakami discloses all aspects of Applicant's claimed invention. However, Kawakami lacks the brush filaments having a length of 2 mm or below and a density of 20,000 filaments/cm² or above.

Swift (U.S. Pat. No. 5,689,791) discloses a cleaning brush having brush filaments includes a length of 2 mm or below and a filament density of 20,000 filaments per cm² or above (col. 9, lines 47-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the device of Kawakami with the cleaning brush as taught by Swift since the device of Swift would provide the device of Kawakami with a cleaning brush capable of provide efficient and uniform cleaning.

Allowable Subject Matter

3. Claims 29-40 are allowed.

4. Claims 5-8, and 10-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed August 6, 2003 have been fully considered but they are not persuasive. The Applicant argues that Kawakami reference does not disclose that cleaning roller is not driven by a motor and rotates by following movement of a

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surface to be cleaned because Kawakami teaches that the brush cleaning could rotate at a higher speed than that of the charging brush. The examiner respectfully disagrees because at column 9, lines 19-20, Kawakami refers that the speed of the cleaning brush is in term of a number of revolution per minute (rpm) and could be higher as compared to the rpm of the charging brush because the radius r_2 of the cleaning brush is smaller as compared to the r_1 radius charging brush as disclosed in Fig. 1 and if the radius r_2 is smaller than r_1 as disclosed in Fig. 1, the rotational speed w_2 of the cleaning brush should be higher than that of the rotational speed w_1 of the charging brush by the formula $r_2.w_2 = A.r_1.w_1$ as disclosed at column 9, line 10. The examiner therefore, read that the cleaning brush has no driving motor and is driven only by the charging brush.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Ngo whose telephone number is (703) 308-0216. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (703) 308-1373. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'Hoang Ngo', with a stylized flourish at the end.

Hoang Ngo
Primary Examiner
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hxn